

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

SD11
1523

SEL/RESERVE M.S

ALMOST EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT
OIL STOVES OPERATION AND MAINTENANCE--BUT WERE AFRAID TO ASK

*U.S. Department of Agriculture, Forest Service, Alaska Region
Tongass National Forest, Chatham Area, Yakutat Work Center*

Your Fuel

Use only Number 1 stove oil. Number 2 furnace (diesel) oil will foul the stove.

NEVER use gasoline or Blazo in any combination for fuel.

Keep the fuel clean. Do not dump the bottom dregs or water into the oil tank. Water or dirt will foul the system.

Take empty fuel cans back to Standard Oil in Yakutat. They are short in supply.

Principles of Burning

The oil must vaporize in the pot to properly burn. To properly vaporize fuel, the pot must be hot. The stove must burn at low fuel flow (#1 or barely on) for at least 30 minutes before being turned higher.

Too much oil--too soon--cools and floods the pot. This prevents it from vaporizing the oil and soots the stove and pipe.

With these stoves, it generally takes a couple of hours to heat a cabin to comfortable room temperature. Please be patient.

Now to Light

Fill the tank. Leave the cap loose so air can enter the oven damper. Make sure the tank is above the carburetor.

Click the oil flow lever down (on carburetors equipped with it).

Turn the fuel regulating knob to #1 (barely on), and wait for the fuel to seep into the bottom of the pot.

Light a 1-inch square of tissue and drop it into the edge of the oil seep in the pot. Wooden matches and large wads of paper will foul ignition and burning.

Watch the pot carefully now to assure that too much oil does not flow into the pot. If it does, turn off the fuel, and let the pot burn the excess oil. Turn on the oil just before the fire dies because oil going into a white-hot pot will atomize and could cause an explosion.

Now, let the stove burn for 30 to 40 minutes on the lowest setting to heat the pot enough to properly vaporize the oil.

When the pot warms to the burning temperature, gradually increase the fuel flow. The average setting is #3. See the front of the log book for more details.

Trouble?

DOES THE STOVE NEED MAINTENANCE? PLEASE LET US KNOW....Remember, it is better to have a stove that works, even if not perfectly, than one that doesn't after you've tried to fix the carburetor. Please don't try to fix the carburetor. Let us know if you have problems.

Flexible hose coupling.--To disconnect the hose from the tank, push in the connector and twist, turn, and pull out. To connect, reverse operations.

Filling tank.--Fill the tank away from cabin so spilled oil will not create a fire hazard next to the cabin.

Draining filter.--If water appears in filter sediment bowl, put a can under the filter and loosen the bottom. Drain down to clean oil. Discard waste water away from the cabin.

Fuel won't flow?--Check the following:

- Oil regulator knob open.

- Fuel flow lever clicked down (on those equipped with it).

- Tank is above carburetors.

- Cap is loose on oil tank.

- Sediment bowl on filter free of water.

- Remove the cleanout plug on the pipe that goes into the pot. It should be open into the pot. If it is not, clean the pot, and run a wire through the pipe to open it.

- Clean the filter on the bottom of the carburetor.

- Unscrew the large nut or screws over an open can. If there is water or dirt in the carburetor, it will drain into the can. Clean the filter screen and drain, and try it!

Stove runs fine for several hours and stops.--The oil tank cap is probably on too tight. Loosen it to allow air into the tank.

Dirty oil pot.--With a spoon or hard piece of wood, scrape the inside of the pot, removing the scales and freeing the airholes. Remove any material in the pot.

Still no fuel? Stove is sooted? Poor draft? Please contact the Forest Service for maintenance.

Heating Time

Lowest setting.--10 hours per gallon of oil.

Average setting (#3).--5 hours per gallons oil.

Highest setting.--2 hours per gallon of oil.

Damper Regulation

Oven damper.--Turn the metal rod to point up to circulate more heat to the oven and down for less heat to the oven and start. To provide more efficient heat for the cabin, leave the oven door open and the damper handle up.

Air control.--Do not turn the adjusting knob.

A hand-drawn diagram of a stove assembly, likely for a small engine or heater. The diagram includes the following components and labels:

- FUEL TANK**: Located at the top left, connected to the main assembly.
- FLEXIBLE HOSE**: Connects the fuel tank to the main assembly.
- WATER TRAP/FILTER**: Located at the bottom left, connected to the main assembly.
- Stovepipe damper**: Located at the top center, connected to the main assembly.
- CARBURETOR**: Located on the top right of the main assembly.
- OVEN DAMPER (OPEN)**: Located in the center of the main assembly.
- BURN RINGS**: Located below the oven damper.
- FIREPOT**: Located below the burn rings.
- CLEANOUT DOOR**: Located at the bottom of the main assembly.
- LIDS**: Located on the right side of the main assembly.
- OIL REGULATING KNOB**: Located on the right side of the main assembly.
- OIL FLOW LEVER**: Located on the right side of the main assembly.
- FILTER/CLEANOUT**: Located on the right side of the main assembly.
- CLEANOUT PLUG**: Located on the right side of the main assembly.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE, REGION 10
OFFICE OF INFORMATION
P.O. BOX 1628
JUNEAU, ALASKA 99802

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF
AGRICULTURE
AGR 101

